

- The Commission should consider only those public interest obligations for SDARS which would "strike a balance between insuring that the public interest is served while not impeding the timely introduction" of SDARS. (35)
- However, the decision in Daniels Cablevision regarding public service requirements for DBS may prompt legal challenges in regards to requirements for SDARS licensees.

Technical standards:

- The Commission should let licensees make decisions regarding technical designs. (36)
- The Commission should not require the first generation of SDARS to provide service beyond CONUS. (38)
- The Commission should not adopt service link margin requirements. (39)
- The Commission does not need to address receiver inter-operability and tunability at this time. It can be resolved by the licensees. (40)
- The licensees should be allowed to determine data rates. (41)
- Primosphere is not currently planning to use terrestrial "gap-fillers." The Commission should not consider the question at this time, however, because it has insufficient information on the subject. If they are approved, they should be restricted to the retransmission of SDARS programming. (41)
- The licensees should be permitted to transmit on cross-polarized frequencies in the frequency assignments of other licensees. (42)
- Licensees should be permitted to reach agreements with other licensees for spectrum sharing. (42)
 - Licensees should also be permitted to purchase spectrum from other licensees. (43)
- If an SDARS license is canceled, the remaining spectrum should be divided between the remaining three licensees. (43)
- The Commission should designate the 7025-7075 MHz band for feeder links. (44)
- Interim frequency assignments should not be allowed because they could cause service interruptions and confusion among consumers. (45)

Financial qualifications and milestones:

- Primosphere supports the Commission's proposed financial qualifications and milestones. (45)

Miscellaneous issues:

- Primosphere intends to offer non-subscription, advertiser-supported, diverse, high-quality audio programming. (1)
- Primosphere plans to donate one of its music-quality channels and one of its voice-quality channels to public broadcasting. Primosphere also plans to donate one of its voice-quality channels for a visually impaired reading service and one of its music-quality channels for children's programming. (6)

Appendices:

Appendix A: Satellite DARS Impact Study: An Assessment of the Impact of Satellite DARS Upon Terrestrial Radio, MTA-EMCI (1995).



RECYCLED

ED11

ALL STATE LEGAL 800-292-0510

Access Innovations, Inc.

Interest: data base construction and operation consulting organization. (Maintains the world's largest data base with 450,000 bibliographic citations to educational audiovisual and multimedia materials.)

General support for SDARS:

- SDARS would greatly benefit distance learning and rural education. It would also help people who are in remote locations, homebound, or otherwise unable to take part in mainstream education.

All Pro Sports and Entertainment, Inc.

Interest: Multi-disciplinary firm which focuses on the representation of professional athletes and entertainers. Areas of expertise and representation include law and contracts, financial planning, accounting, and marketing.

General support for SDARS:

- SDARS will expand sports and entertainment programming opportunities and create related jobs by reaching new markets.
- SDARS will create a market-driven need for additional sports and entertainment programming.
- SDARS would make possible niche programming types not economically supportable with local market size limitations.
- SDARS represent a move towards market diversity.

Technical standards:

- SDARS appear to be practical within the 2310-2360 MHz band.

American Association of Homes and Services for the Aging

Interest: representing 5000 non-profit nursing homes.

General support for SDARS:

- Many older people derive a great deal of pleasure from listening to audio entertainment. Currently only a limited number of radio programs are available in many areas. SDARS will greatly improve this.
 - These people are often uninterested in, or incapable of seeing television. For these people radio is a major source of entertainment.

American Baptist Churches USA

Interest: representing 5800 churches.

General support for SDARS:

- SDARS could become a vital part of this organization's communications network.

Regulatory classification:

- In order to ensure that SDARS will be available to organizations such as this one, however, SDARS operators should be required to provide public service and non-profit access.

American Council for the Arts

Interest: Public interest association whose purpose is to promote public policies that advance and document the contributions of the arts and artists to American life.

General support of SDARS:

- SDARS could carry quality programming with CD quality sound to all areas of the United States.
- SDARS will lead to new and larger audiences for some of America's best symphonies, operas, and other cultural institutions, as well as for less well-known artists.

American Federation of Teachers

Interest: 830,000-member union of teachers and school employees.

General support for SDARS:

- SDARS would have significant value in terms of offering "a path to equity in education."
 - It would enable educators to circumvent barriers which inhibit the growth of computer-dependent instruction.

American Satellite Television Alliance

Interest: non-profit organization assisting satellite dish owners.

General support for SDARS:

- The public could benefit greatly from SDARS.
- In this time of increasing media concentration, every new communications system possible should be authorized.

Ball Corporation
Ball Telecommunication Products Division

Interest: developing and manufacturing antennas and communications equipment.

General support for SDARS:

- SDARS can provide "a variety of programming and a quality of reception that is simply not available today."
 - Rural areas would be better served.
 - Commuters could listen to uninterrupted entertainment.
- The United States is currently only slightly ahead of other countries in developing SDARS.
 - A tremendous number of new jobs depends on maintaining this leadership through the immediate authorization of this technology.

Children's Miracle Network

Interest: Producer of the world's largest television fund raiser.

General support for SDARS:

- SDARS would be an excellent vehicle for conveying the needs of children to a much larger audience than is now possible.
 - The availability of 20 channels will give opportunities to niche programming.

Citizens for a Sound Economy Foundation

Interest: research group which advocates pro-consumer, market-based solutions to public policy problems.

General support for SDARS:

- SDARS could provide a significant increase in the diversity of radio programming.
 - This is essential at a time when other media outlets are going through a reduction in diversity.

Licensing policies:

- The pool of applicants should not be reopened by the Commission.
 - There is no equitable reason why the applicant window should be reopened.
 - Reopening at this point would discourage future investors.
 - Reopening at this point would allow new entrants to "free ride" on the investments of earlier applicants.
 - Reopening would create significantly more delays in deployment of services.
- Auctions should not be used to issue licenses because they would not increase the efficiency and speed by which licenses would be assigned.
 - Because all four applicants can be accommodated in the current spectrum, there is no reason to choose among mutually exclusive applicants.
 - If, however, the applicant pool is increased, then auctions should be used to determine the licensees.

Effect of SDARS on conventional broadcasters:

- The effect of SDARS on existing radio stations should not be a factor in determining whether to license this new service.
 - The FCC has a long and unfortunate history of serving protectionism rather than enhancing competition.

Regulatory classification:

- The Commission should refrain from putting significant service restrictions on SDARS.
 - Given the rapid changes in technology and potential consumer services the Commission is in no position to determine which services should and should not be offered to the public through SDARS.

ComStream Corporation

Interest: designer and manufacturer of digital satellite communications products, systems and services.

General support for SDARS:

- SDARS will create jobs and assist the economy.
- The United States should be a world leader in developing SDARS. Delays will only cost this country money.
- Consumers are always eager for the next wave of technology. SDARS will provide superior audio programming to the public.

**Consumer Electronics Group of
the Electronic Industries Association**

Interest: Trade association of the consumer electronics industry

General support for SDARS:

- SDARS will serve the public interest by offering CD quality national programming, by bringing service to remote locations not reached by terrestrial broadcasters, by making narrowcasting or "niche programming" more economically viable, and by stimulating economic growth through the development of new DARS businesses. (1, 5)
- SDARS represents a quantum leap forward in the capabilities of radio service. (1)
- SDARS will meet extraordinary consumer demands. (1)

Licensing policies:

- Commission should make frequency coordination with Canada and Mexico a priority, so that international coordinations issues do not impede the deployment of satellite DARS systems once the Commission has completed this proceeding. (9-10)

Technical standards:

- Commission should adopt an industry-developed minimum standard for both satellite and terrestrial DARS transmission so as to ensure that consumers can purchase robust DARS equipment at reasonable prices. (7-9)
- The Consumer Electronics Group of the Electronics Industries Association expects to complete the technical evaluation of competing DARS technologies in the near term and will provide the Commission with its test results and recommendations as soon as they become available. (10)

Council for the National Interest

Interest: American policies in the Middle East

General support for SDARS:

- SDARS would make it possible to provide niche programming for non-english speaking ethnic groups whose populations are scattered and do not have programs directed at their interests and needs.

**Cracker Barrel
Old Country Store, Inc.**

Interest: Retail and restaurant chain with desire to build a DARS system to provide "important specialized services to automobile travelers" at specified highway locations (*e.g.*, traffic, weather, and guides to lodging, restaurants, and stores).

Licensing policies:

- SDARS is first new wireless outlet for audio information and entertainment since licensing of FM radio. Competition should be maximized, not oligopolized. (2)
- Previous application filing window should be reopened. The number of licensees should be increased through standardized use of spectrum-sharing. (3)
- At least fifteen providers can be licensed with viable, multi-channel systems using CDMA. (4)
- If no reopening of cut-off, FCC can't be sure that Common has received all of the best proposals. (4)
- The proverbial cart has been placed before the horse by accepting applications and establishing a cut-off before rules were adopted. (5)
- Nothing requires the FCC to keep the filing window closed or to give any spectrum to the initial applicants. (6)
- Four satellite DARS licensees will not ensure true competition; terrestrial broadcasting will not act as a check. (7)
- FCC should consider multiple licensing of satellite facilities so as to maximize efficiency. (11)

Effect of SDARS on conventional broadcasters:

- Satellite DARS will not compete directly with local radio. (7)
- DARS will have no economic impact on local broadcasters who do not address the transient motoring public's interest. (18-19)
- Because transient listeners [purportedly] have no interest in local stations, 82-83% segment of current terrestrial advertising revenues will be unaffected. (22)

n.28) Cracker Barrel's argument presumes consumers will normally subscribe only during long-distance trips. (20-21)

Technical standards:

- CDMA will permit many more simultaneous radio channels and many more than four licensees. (8-9)
- 465 CD quality 128 kbps channels can be accommodated in the 50 MHz authorized to DARS, or 232 CD-quality channels and 465 FM radio-equivalent channels. (9)
- FCC should adopt a single CDMA standard and require DARS receivers to tune across the entire DARS allocation. (13) Rules should allow consumers to subscribe to multiple providers simultaneously. (12)

Financial qualifications and milestones:

- FCC should require demonstration of sufficient financing (current balance sheet or documentary evidence of definitive outside financing) to fund cost of construction, launch, and operation for one year. (14-15)

Miscellaneous issues:

- Cracker Barrel has filed an Application for Review of CD Radio's § 319(d) waiver, arguing that the waiver effectively forecloses technical and procedural options under consideration in this proceeding. (1 n.1)
- Ancillary services such as data transmission, alphanumeric information, or voice mail should be permitted *without limit*. One such service could be distribution of travelers information. (15)
- ITS is a key part of Cracker Barrel's DARS business concept, on the regional or local level using regional spot beams. (16-17)

Dialog and Confluence

Interest: Publishing magazines for Vietnamese people living in America.

General support for SDARS:

- SDARS would make it possible to provide niche programming for Vietnamese or other ethnic groups whose populations are scattered and do not have programs directed at their interests and needs.
- An increase in the number and kinds of diverse, nationally broadcast programs would lead to better understanding among diverse groups.
 - the propagation of ideas and sharing of musical programs that vary by country would enhance communications cross-culturally.

Diginet Communication, Inc.

Interest: providing digital network services.

General support for SDARS:

- SDARS would benefit remote and niche audiences.
- Audiences are very aware of the benefits of high quality audio and a technology that provides it should be licensed.
- SDARS will not only be beneficial in regards to entertainment, but also other areas of digital communications.

Fiesta Italiana

Interest: Non-profit group promoting Italian culture and producing an Italian radio program in Sacramento, California.

General support For SDARS:

- Currently, the Italian-American program this organization produces airs for one hour on Sunday afternoons.
- This group sees a need for Italian-American programming and believes SDARS would be a good vehicle for such programming.
- There are 25 million Italian-Americans in this country and they are "woefully underserved" by existing radio.

Ford Motor Company

Interest: Auto manufacturer interested in providing high quality, low cost receivers that satisfy its customers to the fullest extent possible.

Effect of SDARS on conventional broadcasters:

- Ford offers no comment on DARS systems' effects on traditional broadcasters but supports continued viability of AM and FM broadcasters. (5)

Regulatory Classification

- Auxiliary broadcast of data should be permitted and should be subject to an open, non-proprietary standard. (5)

Technical standards:

- Adequate link margins must be maintained. The existing proposals fail to demonstrate the adequacy of the proposed link margins to meet the customer expectations for a CD quality service. (2)
- Link margins must be substantial. (Attachment) "Systems for Digital Sound Broadcasting to Vehicular, Portable and Fixed Receivers for BSS (Sound) Bands in the Frequency Range 1400-2700 MHz." Fig. 5 shows a dynamic range over a wide range of shadowing conditions of over 35 dB. Another article by E. Lutz *et al.*, "The Land Mobile Satellite Communications Channel - Recording, Statistics, and Channel Model," also demonstrates the seriousness of the fading issue.
- Single receiver standard preferable for low-cost, competitive service. Standard should be public and non-proprietary. (3)
- Post-modulation signal processing should be identical with potential terrestrial digital audio (*e.g.* IBOC and EUREICA-147). (4)
- Ford recommends an industry advisory committee for the purpose of defining such standards. (4)
- It is not possible to estimate the costs of receivers since details of transmission methods and encoding are not available. (4)
- Ford is concerned that cross-polarization may not provide adequate isolation for re-use during mobile operating conditions, due primarily to multipath. (5)

Miscellaneous issues:

- Public interest would not be served by making receivers available to users in connection with subscriptions to a particular service. The receiver/terminal market should be open to all interested manufacturers and independent from the provision of service. Need for subscriber codes and activation hardware/software must be organized so as not to defeat this objective. (5)

**The George Washington University
Institute for Applied Science Research**

Interest: The development of space based applications and their impacts on technology and society.

General support for SDARS:

- SDARS should be improved because it will satisfy society's demand for digital services and enhance the delivery of educational programming and resources.
- Knowledge gained through the development of SDARS will contribute to other fields, thus advancing the United States' technological base.